

What is claimed is:

1 1. A dual tuning fork vibratory gyro-sensor comprising:

2 two arms each includes surfaces thereon and ends;

3 drive electrodes formed on said surfaces of said arms;

4 a first and a second tuning-fork support section supporting said ends of said arms;

5 a first and a second detection section connected to said first and said second tuning fork
6 support sections respectively;

7 a first and a second detection electrode formed on said first and said second detection
8 sections respectively; and

9 a first and a second support securing section supporting an end of said first and second
10 detection sections;

11 wherein said arms and said drive electrodes and said first and said second tuning fork
12 support sections and said first and said second detection sections and said first and said second
13 detection electrodes and said first and said second support securing sections are formed integrally
14 and detect rotational angular velocity;

15 when said dual tuning fork gyro-sensor rotates, a Coriolis force acting on said arms causes
16 in-plane asymmetrical flexural secondary mode vibrations to be generated at said arms, said
17 in-plane asymmetrical flexural secondary mode vibrations being transferred to said first and said
18 second detection sections by way of said first and said second dual tuning fork support sections; and

19 a detection signal for a rotational angular velocity is output from said first and second
20 detection electrodes.

- 1 2. A dual tuning fork vibratory gyro-sensor as described in claim 1 wherein:
- 2 a crystal is used as a base material for said dual tuning fork vibratory gyro-sensor, said
- 3 crystal being cut so that a normal direction of a main plane is a Z axis of a crystal axis; and
- 4 said first and second detections sections are formed with a rectangular shape.